Date: Sat, 23 Jul 94 04:30:12 PDT
From: Ham-Ant Mailing List and Newsgroup <ham-ant@ucsd.edu>
Errors-To: Ham-Ant-Errors@UCSD.Edu
Reply-To: Ham-Ant@UCSD.Edu
Precedence: Bulk
Subject: Ham-Ant Digest V94 #235
To: Ham-Ant

Ham-Ant Digest  Sat, 23 Jul 94  Volume 94 : Issue 235

Today's Topics:



Send Replies or notes for publication to: <Ham-Ant@UCSD.Edu>
Send subscription requests to: <Ham-Ant-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Ant Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-ant".



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Date: 22 Jul 1994 16:01:00 GMT
From: ihnp4.ucsd.edu!agate!darkstar.UCSC.EDU!news.hal.COM!olivea!koriel!
male.EBay.Sun.COM!uranium!raymonda@network.ucsd.edu
Subject: Carrier-current antenna alternative
To: ham-ant@ucsd.edu

>Richard Branden Emmerson (rbe3@konichiwa.cc.columbia.edu) wrote:
>
>: If anyone knows how to set up a "carrier-current" antenna configuration or
>: knows where any information on this topic can be found, I would be greatly
>: appreciative.  Either post on this group or email rbe3@columbia.edu with any
>: information.  Thanks!
>
>: Branden Emmerson
>: rbe3@columbia.edu
>: KE6EYW
>

Carrier current broadcast distribution is traditionally done at or below
AM broadcast frequencies. The signal (say at 1 MHz) is inductively or

capacitively coupled into a buildings AC power wiring. Receivers within the building can capacitively couple the signal off of the power line and receive it. If the signal strength is adequate, you don't even need to couple the receiver to the power line with coupling circuitry, but you can receive the signal if you are within a resonable distance from the wiring due to radiation. Normally this can be from 10 to several hundred feet. Also, other devices on the circuit (motors, appliances, lights, etc.) can soak up a lot of the RF and decrease the signal strength on the line.

This technique is quite often used in college dorms to broadcast to the residents without going on the air and getting a license.

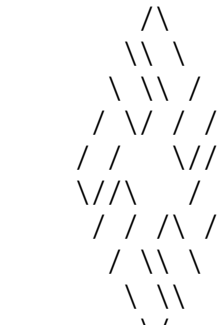
The signal can also feed out of the building and to adjacent buildings, but if there is a transformer on the power pole between buildings, quite a bit of attenuation may result as they are pretty lossy at RF frequencies. There are FCC regulations on how you are allowed to use carrier current techniques. You also need to be careful on how you implement the coupling circuitry as your are messing with AC power circuitry.

The X-10 home automation digital controller stuff utilizes carrier current techniques for device control.

That's it in a nut shell. There is a whole lot more that could be said, but that should get you started.

73's, Ray WB6TPU





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Date: 22 Jul 1994 11:19:42 -0500
From: ihnp4.ucsd.edu!usc!howland.reston.ans.net!europa.eng.gtefsd.com!
news.msfc.nasa.gov!not-for-mail@network.ucsd.edu
Subject: Feedline next to 220V run
To: ham-ant@ucsd.edu

MUENZLERK@uthscsa.EDU (Muenzler, Kevin) writes:

>Tom Blatz (KC5HEG) writes:

>     You should have no problems running your RG8 next to your 220V line.
>I am doing the same thing.  I did place a small junction box at each end
>with
>a large toroid core at each end of the 220V line.  I don't remember the
>number
>that I used but it is about 5 inches across and about 1.5 inches thick.  I
>put
>three turns of the 220V line through the core at each end.  This should take
>care
>of any RFI introduced.  Since you will be running 2 meters and probably low
>power, you shouldn't not need to do that.  I am running a Yaesu FL-7000 amp
>(about 600W) and RG8 and am having no problems.

You shouldn't have to go to this length.  The reason being the coax, if it
is of good quality, is shieled. i.e. no RF in or out of the coax.  So you
don't really need the torroids, etc.

Herb

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        Find your dream, and never give up until you achieve it

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Find your dream, and never give up until you achieve it

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Date: Fri, 22 Jul 1994 15:42:01 GMT
From: netcomsv!netcom.com!slay@decwrl.dec.com
Subject: ROHN tower info, please
To: ham-ant@ucsd.edu

Thanks to all for direct and posted replies. I have now contacted
ROHN Mfg. directly. Many thanks again.

73 de Sandy
slay@netcom.com

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End of Ham-Ant Digest V94 #235
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